QUIZ!
Use a full sheet of 8½x11" paper. (Half sheet? Half credit!)

Put *only your last name* in the *far upper left hand corner* of the sheet, where a staple would hit it. It's OK to write BIG, just start in the corner!

Avoid a ½-point deduction!

Keep answers short! Avoid full sentences. Feel free to abbreviate.

6 questions; 4 minutes; 4 points.

Numbering responses may help you avoid overlooking a question. You may go ahead and number your paper.
1. Write an example of a structure with two terms.

2. What are two distinct computations that can be done with the predicate `food/1` that we've been using?

3. What does the notation `f/3` mean?

4. Draw and label the ports of the four-port model.

5. What is the output of the following query?
   
   ```prolog
   ?- A=1, B=2, write(A), A=B, write(B).
   ```

6. Given these facts, `a(1). a(1,2). a(2).`
   
   what is output by the following query?
   
   ```prolog
   ?- a(X), writeln(X), fail.
   ```
Solutions

1. Write an example of a structure with two terms.  \( x(1,2) \)

2. What are two distinct computations that can be done with the predicate \( \text{food/1} \) that we've been using?
   
   (1) Ask if something is food.  (2) Enumerate all foods.

3. What does the notation \( f/3 \) mean?  \( f \) is a three-term predicate.

4. Draw and label the ports of the four-port model.

5. What is the output of the following query?
   
   \(- A=1, B=2, \text{write}(A), A=B, \text{write}(B)\).
   
   1
   false.

6. Given these facts, \( a(1) \).  \( a(1,2) \).  \( a(2) \).
   what is output by the following query?
   
   \(- a(X), \text{writeln}(X), \text{fail} \).
   
   1
   2
   false.